1967

An analysis of the Iowa training program under the Manpower Development and Training Act of 1962

Roger Allen Knuth
Iowa State University

AN ANALYSIS OF THE IOWA TRAINING PROGRAM UNDER THE MANPOWER DEVELOPMENT AND TRAINING ACT OF 1962

by

Roger Allen Knuth

A Thesis Submitted to the
Graduate Faculty in Partial Fulfillment of
The Requirements for the Degree of
MASTER OF SCIENCE

Major Subject: Industrial Education

Approved:

Signatures have been redacted for privacy

Iowa State University
Ames, Iowa

1967

TABLE OF CONTENTS

LIST OF TABLES

INTRODUCTION

The Congress of the United States on March 15, 1962 enacted the "Manpower Development and Training Act of 1962" after finding that there was a critical need in many vital occupational areas for more and better qualified personnel. This shortage of trained personnel not only existed in the professional and scientific categories but in the semiskilled and skilled labor categories as well. It became the Nation's responsibility to identify prospective labor shortages and reduce these shortages by the training and educating of those who were otherwise unqualified to fill these positions.

The realization that thousands of persons were becoming unemployable because of the obsolescence of previously employable skills also prompted the enactment of the above mentioned bill. Relocation of industries, automation and technological advancements, and foreign competition all contributed to the growing problem of unemployment. The estimated 7 million high school dropouts seeking entrance into the labor market during the 1960's was resulting in a Nation with a skilled labor market and an unskilled supply.

As stated in Title 1, Section 101 of the Manpower Development and Training Act of 1962, "It is therefore the purpose of this Act to require the Federal Government to appraise the manpower requirements and resources of the Nation, and to develop and apply the information and methods needed to deal with the problems of unemployment resulting from automation and technological changes and other types of persistent unemployment" (2, p. 2).

Administration responsibilities are being carried out by the

cooperative effort of the U.S. Department of Labor and the U.S. Office of Education (Department of Health, Education and Welfare). In Iowa the Employment Security Commission is responsible for the selection, testing and counseling of prospective trainees while the State Department of Public Instruction, Division of Vocational Education, is responsible for the training of these persons. After training, persons are referred back to the Employment Security Commission for placement. Periodic post training reports are also administered by the Employment Security Commission.

Training may be acquired through established vocational courses conducted at a private or public school or vocational training may be conducted specifically for Manpower trainees. On-the-job training may also be acquired but this study shall concern itself only with the classroom training programs, i.e., institutional training programs.

The original act was amended in 1965 to continue operation through June 30, 1969. Prior to July 1, 1966, the Manpower programs received 100 per cent federal funds, but since that date there has been a matching of 10 per cent state or local funds. New guidelines also require that 65 per cent of the persons trained during Fiscal Year 1967 will be disadvantaged, hardcore, unemployed youths and adults, while 35 per cent will be persons training for emerging skill shortages.

As previously stated, the Iowa Employment Security Commission is responsible for the selection, testing and counseling of prospective trainees and is also responsible for the collection of post training reports. At the time of this study, the post training reports administered

three, six and twelve months after a person has completed training, are being collected by local employment service offices and filed at the Research and Statistics Division of the Employment Security Commission. These reports are referred to as the MT-103 Post Training Reports. The completed MT-101's or the Characteristics of Trainees Reports are also filed at this location. (See the appendix for examples of these forms.)

Prior to this investigation, only a limited amount of information was taken from the MT-103 forms and recorded. As far as the researcher was able to ascertain this information has not been used or reported.

One purpose of this study was to compile the information reported on the MT-101 and MT-103 forms into a readable and understandable report. It is not the intention of the researcher to attempt an evaluation of the Manpower program in Iowa since no basis of comparison or criteria for evaluation has been established. It is hoped, however, that by presenting the information in a usable form that administrators of the training programs will be able to see the net results of the program and make inferences relative to certain aspects of the program.

Another purpose of this investigation was to analyze the trainees who completed an institutional training program under the Manpower program in Iowa prior to July 1, 1965. This analysis included characteristics of the graduate, his employment history and follow-up information.

This study also attempted to determine factors, through the data collected, which possibly affected employment success.

As indicated in the review of literature, no Iowa study was located which parallels this investigation or which makes use of the information

already available from trainees who have completed training. The researcher was approached by the training administrators with the problem of being unable to use the information as presently available. This study is an attempt, therefore, at putting to use information which prior to this study was not usable.

REVIEW OF LITERATURE

A search for literature directly related to the problem under investigation was conducted. No study was found that paralleled the one under investigation. That is, no study at the state level for any state program or for the state of Iowa was located. Several studies were located which were related to specific aspects of the Manpower program but these were generally not significant to this study.

A letter to the Office of Manpower, Automation and Training, U.S. Department of Labor, resulted in the receipt of a complete set of the Manpower Evaluation Reports. Information which related directly to this study was obtained only from these reports.

A report by Hepler (12) in 1963 evaluates the extent to which training programs are meeting the need for marketable skills among disadvantaged groups, persons who are markedly disadvantaged in the competition for available jobs because of certain personal characteristics or lack of suitable work skills. The report was primarily concerned with groups such as the untrained, minority-group youth; older, undereducated workers; etc.

Evaluations of the effectiveness of the institutional training programs focused on the characteristics of the trainees, in comparison with the distribution of the same characteristics of the total unemployed group.

A summary of the findings was:

1. The trainee group as a whole tends to be younger and better educated than the total jobless group, although the long-term unemployed have a greater representation among the trainees than their

proportion of all unemployed.

2. About 19 per cent of the 30,650 persons enrolled in MDTA training programs to the end of June 1963 were between 19 and 21 years of age. This is considerably higher than the proportion of this age among the unemployed.

3. Teenagers under 19 years of age accounted for only six per cent of the trainees but accounted for 16 per cent of all unemployed.

4. While about half of all unemployed persons under 25 years of age had not completed high school, two out of three in this age group enrolled in MDTA training had a high school diploma.

5. About 13 per cent of all unemployed in 1962 who had been jobless for 15 weeks or more were young people under the age of 20. By comparison, about 4 per cent of the total number of long-term unemployed enrolled in MDTA courses were under 19 years of age.

6. The unemployed 45 years of age and over comprise nearly 30 per cent of all jobless workers, only 11 per cent of the persons enrolled in MDTA courses come from this age group.

7. About half of the older workers enrolled for training had education below the high school level, although 76 per cent of the unemployed in this age group had less than a high school education. One-third of all unemployed workers failed to finish eight grades of schooling, only 7 per cent of the trainees were drawn from this group.

8. The proportion of handicapped MDTA trainees is less than their representation among the total unemployed: 7.5 per cent of

MDTA trainees are in the handicapped group as compared with 12 per cent unemployed reported by the U.S. Public Health Service.

9. Twenty per cent of all unemployed had completed fewer than eight years of school. Underlining the need for a minimum educational background is the fact that only three per cent of MDTA trainees have been drawn from this group.

10. High school graduates are being selected for training at a rate nearly double their proportion among all unemployed.

Hepler stated in summary (12, p. 5) that even though serious efforts have been made to assist groups with the greatest need for training and employment, employer requirements have taken precedence. Thus, the trainee group as a whole tends to be younger and better educated than the total jobless group, although the long-term unemployed have a greater representation among the trainees than their proportion of all unemployed.

Wood (11) reported in "Occupational Training of Women Under the Manpower Development and Training Act", the extent to which programs are meeting the needs of unemployed women. This study reiterates what Hepler's findings point out; that the trainees are not always representative of the total unemployed group. Many of these differences were easily explained by pointing out that a prospective trainee's occupational choices and training opportunities are greatly limited by a lower level of educational achievement. Employer demands also account for many of the differences between the trainee group and the total unemployed female group.

A summary of findings concerning employment after training was:

1. Of the 11,000 women completing training in 1962 and 1963,

more than two-thirds (68 per cent) of these previously unemployed or underemployed women had obtained jobs by the end of 1963, mostly in jobs related to their training.

2. The women receiving training in the professional, semi-professional, technical and service categories had a relatively high employment rate (72 - 73 per cent). Clerical and sales trainees had an employment rate of 67 - 68 per cent while the semiskilled category had the lowest rate (62 - 63 per cent).

3. The younger trainees and those who had been unemployed for relatively short periods found jobs somewhat more readily than women in older age groups or women with more prolonged periods of joblessness.

In 1965, Quinlan (3) reported on the graduates of a research and demonstration project conducted at Norfolk, Virginia. The Norfolk Project was one of the earliest programs in which disadvantaged persons had been trained under the Manpower program. The project trained approximately 100 males, all Negroes, in five occupational areas. The training included remedial education as well as instruction that would help the graduates obtain and hold jobs.

A summary of the graduate characteristics was:

1. The mean age of graduates was 30.7 years. More than half of the trainees fell into the 21- to 29-year age category. Problems in placement were not anticipated to be too great because most of the graduates were in the "prime" working age group.

2. The graduates of the program generally had a tenth grade

education or better. Almost one-third of the graduates had 12 or more years of school, a higher educational level than was anticipated. The average grade completed by the graduates was 10.4.

3. Job histories generally showed intermittent periods of unemployment. For the most part their employment had been in low-skill, poorly paid jobs.

4. The duration of unemployment immediately prior to training for graduates of the program was not lengthy. Sixty-one per cent of the graduates had been unemployed less than 15 weeks while 19 per cent fell into the very long-term unemployed category (27 weeks or more).

A summary of the conclusions was:

1. The employment rate cumulative over the year following completion of training for training-related jobs was a high 99 per cent compared with 72 per cent for trainees who completed regular MDTA institutional courses.

2. At the time of evaluation, 89 per cent of the graduates were employed with 41 per cent of them having training-related jobs.

Quinlan (3, p. 24) summarized the report when he said:

> One of the principal areas of success of this program has been the ability of several of the graduates to break out of the cycle of low-skill, low-pay jobs that previously characterized many of these persons and to obtain and hold permanent, well-paid jobs (such as those at the automobile assembly plant).
>
> At the end of the year following graduation, some of the trainees became unemployed and fewer were working in training-related jobs. Post training counseling and other services and continuing follow-up of the trainees to assist further with job adjustment appear to be necessary.

In the January, 1967, issue of the "Educational Bulletin" (1, p. 3) it was reported that through December 31, 1965 Iowa had 2,701 enrollments and 1,421 completions. Of these, 95.2 per cent had obtained employment and 83.8 per cent were still employed as of the last contact. This ranks Iowa third among all states in the number of institutional trainees securing employment through the Manpower Development and Training Act. This compares to Montana with 96.3 per cent obtaining employment.

Summary

In examining the literature reviewed, it would appear that the relatively high employment rate for all trainees would be a definite indicator of program success. The fact that the placement record has been good for the disadvantaged, the older trainees and for those with extremely long periods of joblessness is a measure of solid achievement in aiding disadvantaged workers. It is an indication that carefully planned training, along with proper guidance and selection techniques, can open the door to many who previously had little chance of obtaining and holding jobs.

The studies also pointed out that even though the programs have generally been successful and there has been a serious attempt to help those with the greatest need for help, the trainee group has not been truly representative of the total unemployment picture. Employer requirements have taken precedent which results in a younger and better educated training group.

It was also indicated that even though employment rates are high

immediately following the training program, this rate drops off. A higher degree of counseling and a more thorough dissemination of occupational information was suggested as a possible solution to the problem of poor job or occupational training selection.

Realizing the Manpower program is still relatively new, most authors and researchers spoke highly of the program and considered the results to this point greatly successful. The shortcomings which exist appear to be fewer than normally expected. Only through constant investigation, re-evaluation and refinement can the program continue to grow and maintain the same level of success that it has experienced during its formative years.

PROCEDURE

The analysis of the MDTA program in Iowa includes all regular institution program trainees who completed a training project in Iowa, prior to July 1, 1965. This date was selected because a complete file was available regarding each trainee who completed a project between the time of the program's inception in Iowa and the selected cut-off date. Files on trainees who completed a project after July 1, 1965 did not contain all post training reports due to the time lapse between the completing of the twelve month report and the filing of the report at the Employment Security Commission or because the twelve month point after training had not been reached. The time period covered by this investigation includes 1002 trainees. It should be understood that many trainees may be employed prior to the established ending date for a particular project. These trainees are excluded from this study because regular follow-up reports are not available for these individuals.

Information concerning each trainee was obtained from the Characteristics of Trainees report and the three Post Training Reports, hereafter referred to as the MT-101 and MT-103 reports respectively. Complete MT-101 reports were available for all trainees while some MT-103 reports were not completed because trainees could not be located. Figures showing percentage of return on the MT-103 reports are located in Table 32, page 62.

The information obtained from the MT-101 reports is listed below.

1. Occupational training area
2. Location of training project

3. Employment service office making referral for training
4. Age of trainee at end of training period
5. Sex
6. Whether or not trainee was handicapped
7. Marital status of trainee at time of training
8. Whether or not trainee was head of household
9. Whether or not trainee was considered primary wage earner
10. Number of dependents
11. Education level completed prior to training
12. Years spent in gainful employment
13. Consecutive weeks unemployed prior to training
14. Unemployment insurance status
15. Public assistance status

An MT-103 report was sent to each trainee three, six and twelve months after training. The information obtained from these reports was the same for each with the exception of the last item, which was obtained only from the twelve month report. The information obtained is listed below.

1. Labor status at time of report
2. Hourly wage (if employed)
3. Whether or not job is related to training
4. Whether or not training was useful in obtaining present job
5. How present job was obtained
6. Whether or not trainee moved 50 miles or more to obtain job

7. Number of jobs held lasting 30 days or more

The files of all 1002 trainees were examined and the information needed was coded and placed on code sheets. The coded information was then transferred to punched cards and processed. Selected results were tabulated and developed into tables and charts for further investigation.

A list of definitions of terms used in this study is located on page 80 of the appendix.

FINDINGS

The purpose of this study was to present a detailed descriptive analysis of the Manpower trainees by compiling information previously collected on the MT-101 and MT-103 forms into a readable and understandable report. An attempt was also made at determining factors which possibly affected employment success. The findings reported were based on data collected from the above mentioned forms. These forms had been compiled on 1002 graduates of the Manpower program in Iowa.

The report of the findings was arranged into three groupings. The first section includes general characteristics of the trainees at the time of their training program. The second section reports the employment status of the trainees three, six or twelve months after training and the characteristics of those unemployed twelve months after training. The last section reports findings on placement, trainee mobility and follow-up results.

General Characteristics

Information was obtained on every trainee who completed an institutional training program prior to July 1, 1965. This gave the investigator a trainee population of 1002 men and women. The classifications used were generally as they appeared on the MT-101 form. Adjustments or variations are noted where appropriate.

The data in Table 1 indicated the age of those trainees completing a training program. The ages were adjusted to coincide with the end of the training period. The MT-101 forms indicated the age upon entry into

Table 1. Age of graduates at end of training period by sex

Age	Male		Female		Both	
	n	%	n	%	n	%
Less than 19	31	4.5	50	15.9	81	8.1
19 to 21	169	24.6	92	29.2	261	26.0
22 to 44	404	58.8	117	37.2	521	52.0
45 and over	83	12.1	56	17.7	139	13.9
Total	687	100.0	315	100.0	1002	100.0

the program. Since the different programs varied considerably in length it was felt that date of re-entry into the labor force was more appropriate for the purpose of comparison.

It was found that of those trainees completing a training program, 81 or 8.1 per cent were less than 19 years of age. For the older age group, 139 or 13.9 per cent of the trainees were 45 years of age or older.

Eight of the occupational training areas had at least 40 trainees as indicated by the data in Table 2. Two of these eight categories, namely the sewing machine operator and key punch operator, indicated a marked difference from the total trainee age distribution. Forty-three per cent of the sewing machine operator trainees were 45 years of age or older. This was easily explained by the fact that the program was established in a small community to satisfy an employment need in that immediate area. The available labor force was primarily composed of married females in the '45 and over' age group.

The key punch operator group was heavily weighted by the younger age group with 79.0 per cent under the age of 22. Only 42 or 31.0 per cent of this group were 22 years of age or older.

Table 2. Age of graduates at end of training project by occupational training area

Training area	Less than 19		19 to 21		22 to 44		45 and over		Total
	n	%	n	%	n	%	n	%	N
Appliance repairman	-	-	-	-	1	12.5	7	87.5	8
Auto body repairman	1	3.3	7	23.3	20	66.7	2	6.7	30
Auto mechanic	5	4.5	43	38.4	52	46.4	12	10.7	112
Beauty operator	1	33.3	-	-	2	66.7	-	-	3
Clerk, general	4	10.0	6	15.0	20	50.0	10	25.0	40
Draftsman	2	5.4	7	18.9	27	73.0	1	2.7	37
Farmhand	-	-	14	23.0	45	73.8	2	3.2	61
Key punch operator	37	27.2	57	41.8	40	29.4	2	1.6	136
Machine operator	5	8.5	11	18.6	30	50.8	13	22.1	59
Meat cutter	-	-	2	5.7	19	54.3	14	40.0	35
Nurse, practical	-	-	8	30.8	11	42.3	7	26.9	26
Programmer	-	-	8	34.8	15	65.2	-	-	23

Table 2 (Continued)

Training area	Less than 19 n	%	19 to 21 n	%	22 to 44 n	%	45 and over n	%	Total N
Salesperson, general	3	3.0	25	25.0	47	47.0	25	25.0	100
Sewing machine operator	5	11.4	5	11.4	15	34.1	19	43.1	44
Stenographer	-	-	10	33.3	15	50.0	5	16.7	30
TV service and repairman	1	3.1	4	12.5	26	81.3	1	3.1	32
Upholsterer	-	-	4	33.3	8	66.7	-	-	12
Waitress	4	25.0	1	6.2	9	56.2	2	12.5	16
Welder	13	6.6	49	24.7	119	60.1	17	8.6	198
Total	81	8.1	261	26.0	521	52.0	139	13.9	1002

The information as presented in Table 3 indicated that only two per cent of the graduates had completed less than eighth grade while 56 per cent had a high school education. Only 71 or 22.5 per cent of the female graduates had not completed high school as compared to 304 or 44.2 per cent of the male graduates.

Fifty-nine or 18.7 per cent of the female graduates had dropped out of high school during grades 10, 11 or 12. One hundred ninety-seven or 28.6 per cent of the male graduates dropped out of school during that same period.

Table 3. Educational attainment of graduates by sex

Grade level	Male		Female		Both	
	n	%	n	%	n	%
Under 8	18	2.6	1	0.3	19	2.0
8	89	13.6	11	3.5	100	10.0
9 to 11	197	28.6	59	18.7	256	25.5
12	337	49.1	225	71.5	562	56.0
Over 12	46	6.7	19	6.0	65	6.5
Total	687	100.0	315	100.0	1002	100.0

Table 4. Number of dependents reported at beginning of training by male and female trainees

Number of dependents	Male		Female		Both	
	n	%	n	%	n	%
None	187	27.2	226	71.7	413	41.3
1 to 2	250	36.4	55	17.5	305	30.4
3 to 4	167	24.3	25	7.9	192	19.1
5 or more	83	12.1	9	2.9	92	9.2
Total	687	100.0	315	100.0	1002	100.0

Table 5. Marital status of graduates at beginning of training by sex

Marital status	Male		Female		Both	
	n	%	n	%	n	%
Single	187	27.2	131	41.6	318	31.7
Married	482	70.2	103	32.7	585	58.4
Other (divorced, widowed, etc.)	18	2.6	81	25.7	99	9.9
Total	687	100.0	315	100.0	1002	100.0

The data in Tables 4 and 5 indicated that 70 per cent of the male trainees are married and over 36 per cent have three or more dependents. It also showed that one-fourth of the female trainees were divorced, widowed or separated and that 41 per cent were unmarried. Seventy-two per cent of the women trainees reported no dependents.

Table 6. Handicapped persons as a percentage of graduates by sex

Handicapped	Male		Female		Both	
	n	%	n	%	n	%
Yes	115	16.6	29	9.2	144	14.4
No	572	83.4	286	90.8	858	85.6
Total	687	100.0	315	100.0	1002	100.0

Sixteen and six-tenths per cent of male trainees and 14.4 per cent of all trainees were classified as handicapped according to the data presented in Table 6. This appeared favorable to the percentage of handicapped persons among the unemployed as reported by the U.S. Public Health Service in 1963.

Table 7. Years of gainful employment prior to training by sex

Years of gainful employment	Male		Female		Both	
	n	%	n	%	n	%
Less than 3	129	18.8	183	58.1	312	31.2
3 to 9	301	43.8	94	29.8	385	39.4
10 and more	257	37.4	38	12.1	295	29.4
Total	687	100.0	315	100.0	1002	100.0

The data in Table 7 indicated that 29.4 per cent of the trainees had 10 or more years of gainful employment prior to training. The high proportion of female trainees (58.1 per cent) as compared to the 18.8 per cent of male trainees who had less than three years of gainful employment was not unexpected since a female's employment is often intermittent due to marriage and family.

The long-term unemployed were classified as those unemployed 15 weeks or more. The data presented in Table 8 indicated 187 or 27.2 per cent of the male trainees fell into this category as compared to 166 or 52.7 per cent of the females. Three hundred fifty-three or 35.3 per cent of the

Table 8. Duration of unemployment of graduates immediately prior to training by sex

Duration of unemployment	Male		Female		Both	
	n	%	n	%	n	%
Under 5 weeks	310	45.2	96	30.5	406	40.5
5 to 14 weeks	190	27.6	53	16.8	243	24.2
15 to 26 weeks	97	14.1	54	17.2	151	15.1
27 to 52 weeks	59	8.6	25	7.9	84	8.4
Over 52 weeks	31	4.5	87	27.6	118	11.8
Total	687	100.0	315	100.0	1002	100.0

total trainee group could be classified as long-term unemployed.

The information presented in Table 9 summarizes those characteristics already discussed and includes unemployment insurance status, public assistance status and whether or not trainees were classified as 'head of household' or 'primary wage earner' at the time of their referral to the program.

A trainee's classification as to unemployment insurance claimant or public assistance recipient was based on the claimant roll at the time the referral was made. An individual may have been on either roll one day or one month prior to the referral and this would not have been indicated on the MT-101.

When a person was considered the primary wage earner he was usually classified as the head of the household. This was indicated by the

similarity in distribution.

Table 9. Characteristics of trainees at beginning of training program

Characteristic	Number	Per cent
Age		
Less than 19	82	8.2
19 to 21	248	24.7
22 to 44	531	53.0
45 and over	141	14.1
Sex		
Male	687	68.6
Female	315	31.4
Handicapped		
Yes	144	14.4
No	858	85.6
Marital status		
Single	328	31.7
Married	586	58.5
Other	98	9.8
Primary wage earner		
Yes	679	67.7
No	323	32.3
Head of household		
Yes	590	58.9
No	412	41.1
Number of dependents		
0	414	41.3
1 to 2	305	30.4
3 to 4	191	19.1
5 or more	92	9.2
Educational attainment		
Under 8	19	1.9
8	100	10.0
9 to 11	256	25.5
12	561	56.0
Over 12	66	6.6

Table 9 (Continued)

Characteristic	Number	Per cent
Years of gainful employment		
Less than 3	311	31.1
3 to 9	395	39.4
10 or more	296	29.5
Duration of unemployment		
Under 5 weeks	407	40.6
5 to 14 weeks	243	24.2
15 to 26 weeks	150	15.0
27 to 52 weeks	84	8.4
Over 52 weeks	118	11.8
Unemployment insurance claimant		
Yes	118	18.8
No	814	81.2
Public assistance recipient		
Yes	61	6.1
No	994	93.9

Employment Status

The following tables were developed by using the data from the follow-up reports (MT-103 forms) sent out to each graduate three, six and twelve months after they completed the training program. Most tables illustrate the number of trainees who graduated in a respective category and the number of trainees who actually returned the follow-up report. These two figures cannot be used to indicate percentage of questionnaires returned since the MT-103 was not used during the initial phases of the program. Consequently some graduates only received a six month and/or

a twelve month questionnaire. Table 32 in the third section of the findings presents the results of the various questionnaire mailings.

Tables 10, 11 and 12 illustrate the employment status of those graduates by sex who returned the MT-103 forms three, six and twelve months after their training program was completed. The columns titled 'employed', 'unemployed' and 'not in labor force' were the responses used on the questionnaire. The last column on the right was compiled using only those graduates who indicated that they were in the labor force at the time the questionnaire was being filled out.

The data in Table 10 indicated that male graduates 21 years of age or less experienced less difficulty in obtaining employment than those 45 and over. At the time of the three month report 93 per cent of the younger group were employed as compared to 69.6 per cent of the older group. This difference became less by the time of the six and twelve month reports. The last report indicated an unemployment rate of only three per cent for the males 21 years or less and an unemployment rate of 10.1 per cent for the group 45 and older.

Twelve months after training the female graduates 45 and older had a higher employment rate than those 21 years of age and younger. The data in Table 11 indicated that 93.2 per cent of the older group in the labor force were employed one year after training compared to 90.0 per cent for the younger group. This difference was greater for the three and six month periods but the number of graduates returning a report was quite small for the older age group, thus no comparison was made.

Forty-two or 13.2 per cent of all females reporting twelve months

Table 10. Employment status of male graduates three, six and twelve months after training by age

MT-103 report period months	Age years	Number of graduates	Number of responses
3	Less than 19	31	15
	19 to 21	169	85
	22 to 44	404	198
	45 and older	83	50
	Total	687	348
6	Less than 19	31	25
	19 to 21	169	116
	22 to 44	404	282
	45 and older	83	67
	Total	687	490
12	Less than 19	31	24
	19 to 21	169	129
	22 to 44	404	290
	45 and older	83	66
	Total	687	509

Employed		Unemployed		Not in labor force		Employment rate of those in labor force
n	%	n	%	n	%	%
14	93.3	0	-	1	6.7	100.0
68	80.0	6	7.1	11	12.9	91.9
165	83.3	24	12.1	9	4.6	86.4
32	64.0	14	28.0	4	8.0	69.6
279	80.2	44	12.6	25	7.2	86.4
21	84.0	1	4.0	3	12.0	95.5
100	86.2	6	5.2	10	8.6	94.3
251	89.0	25	8.9	6	2.1	90.9
54	80.7	9	13.4	4	5.9	85.7
426	86.9	41	8.4	23	4.7	91.2
20	83.4	0	-	4	16.6	100.0
113	87.6	4	3.1	12	9.3	96.6
263	90.7	16	5.5	11	3.8	94.3
53	80.3	6	9.1	7	10.6	89.9
449	88.2	26	5.1	34	6.7	94.6

Table 11. Employment status of female graduates three, six and twelve months after training by age

MT-103 report period months	Age years	Number of graduates	Number of responses
3	Less than 19	50	23
	19 to 21	92	24
	22 to 44	117	50
	45 and over	56	20
	Total	315	117
6	Less than 19	50	29
	19 to 21	92	51
	22 to 44	117	75
	45 and over	56	29
	Total	315	184
12	Less than 19	50	39
	19 to 21	92	67
	22 to 44	117	104
	45 and over	56	54
	Total	315	264

Employed		Unemployed		Not in labor force		Employment rate of those in labor force
n	%	n	%	n	%	%
17	73.9	4	17.4	2	8.7	81.0
19	79.2	5	20.8	0	-	79.2
37	74.0	8	16.0	5	10.0	82.2
16	80.0	1	5.0	3	15.0	94.1
89	76.1	18	15.4	10	8.5	83.2
20	69.0	8	27.6	1	3.4	71.5
34	66.7	12	23.6	5	9.8	73.9
60	80.0	10	13.3	5	6.7	85.7
21	72.4	5	17.3	3	10.3	80.8
135	73.4	35	19.0	14	7.6	79.4
30	76.9	4	10.3	5	12.8	83.2
51	76.1	5	7.5	11	16.4	91.1
78	75.0	14	13.5	12	11.5	84.8
41	75.9	6	11.1	7	13.0	93.2
200	75.8	29	11.0	35	13.2	87.4

Table 12. Employment status of male and female graduates three, six and twelve months after training by age

MT-103 report period months	Age years	Number of graduates	Number of responses
3	Less than 19	81	38
	19 to 21	261	109
	22 to 44	521	248
	45 and over	139	70
	Total	1002	465
6	Less than 19	81	54
	19 to 21	261	167
	22 to 44	521	357
	45 and over	139	96
	Total	1002	674
12	Less than 19	81	63
	19 to 21	261	196
	22 to 44	521	394
	45 and over	139	120
	Total	1002	773

Employed		Unemployed		Not in labor force		Employment rate of those in labor force
n	%	n	%	n	%	%
31	81.6	4	10.5	3	7.9	88.6
87	79.8	11	10.6	11	10.6	88.8
202	81.5	32	12.9	14	5.6	86.3
48	68.6	15	21.4	7	10.0	76.2
368	79.1	62	13.3	35	7.6	85.6
41	75.9	9	16.7	4	7.4	82.0
134	80.2	18	10.8	15	9.0	88.2
311	87.1	35	9.8	11	3.1	89.9
75	78.2	14	14.5	7	7.3	84.3
561	83.2	76	11.3	37	5.5	88.0
50	79.4	4	6.4	9	14.2	92.6
164	83.7	9	4.6	23	11.7	94.8
341	86.5	30	7.6	23	5.9	91.9
94	78.3	12	10.0	14	11.7	88.7
649	84.0	55	7.1	69	8.9	92.3

after training did not consider themselves in the labor force. Only 6.7 per cent of all males reporting twelve months after training placed themselves in this category.

Table 12 presents the male and female data as one group. Most of the items discussed after the two preceding tables were reflected in this table. It was inferred, however, that younger trainees generally found employment more quickly than did the older trainees.

The education level attained prior to training apparently had an influence on employment success after training. The difference in employment status twelve months after training, as indicated in Table 13, was not as marked between the low and high educational attainment groups as was expected. Those graduates in the labor force with at least a high school diploma had an unemployment rate of 6.5 per cent. Those with an eighth grade education or less had an unemployment rate of 11.3 per cent.

In the female group the number of graduates with less than nine grades of schooling was only 12 so no comparison was made. It was interesting to note, however, that of the 55 female graduates with less than a high school diploma 13 or 23.6 per cent were not in the labor force twelve months after training as compared to 10.5 per cent of those females reporting that had at least completed twelfth grade.

Males reporting twelve months after training that had completed eighth grade or less experienced an unemployment rate of 10.3 per cent while those males reporting that had at least completed high school had an unemployment rate of 4.6 per cent.

Table 13. Employment status 12 months after training by sex and educational attainment

Sex and educational attainment	Number of graduates	Number of responses
Male	687	509
Under 8	18	12
8	89	64
9 to 11	197	137
12	337	259
Over 12	46	37
Female	315	264
Under 8	1	1
8	11	9
9 to 11	59	45
12	225	192
Over 12	19	17
Both	1002	773
Under 8	19	13
8	100	73
9 to 11	256	182
12	562	451
Over 12	65	54

Employed		Unemployed		Not in labor force		Employment rate of those in labor force
n	%	n	%	n	%	%
449	88.2	26	5.1	34	6.7	94.6
9	75.0	2	16.7	1	8.3	81.8
56	87.5	5	7.8	3	4.7	91.8
124	90.5	7	5.1	6	4.4	94.7
227	87.6	10	3.9	22	8.5	95.8
33	89.2	2	5.4	2	5.4	94.2
200	75.7	29	11.0	35	13.3	87.4
0	-	1	100.0	0	-	00.0
6	66.7	1	11.1	2	22.2	85.8
25	55.6	9	20.0	11	24.4	73.5
156	81.3	16	8.3	20	10.4	90.8
13	76.4	2	11.8	2	11.8	86.7
649	84.0	55	7.1	69	8.9	92.3
9	69.2	3	23.1	1	7.7	75.0
62	84.9	6	8.2	5	6.9	91.2
149	81.9	16	8.8	17	9.3	90.3
383	84.9	26	5.8	42	9.3	93.5
46	85.2	4	7.4	4	7.4	92.0

Table 14. Employment status for those contacted and in the labor force

Training area	3 months				Total
	Employed		Unemployed		
	n	%	n	%	
Appliance repairman	7	87.5	1	12.5	8
Auto body repairman	21	95.4	1	4.6	22
Auto mechanic	52	88.1	7	11.9	59[a]
Beauty operator	1	100.0	-	-	1
Clerk, general	26	83.9	5	16.1	31
Draftsman	20	90.9	2	9.1	22[a]
Farmhand	19	79.2	5	20.8	24[a]
Key punch operator	30	75.0	10	25.0	40[a]
Machine operator	25	73.5	9	26.5	34[a]
Meat cutter	26	83.9	5	16.1	31
Nurse, practical	7	100.0	-	-	7[a]
Programmer	17	100.0	-	-	17
Salesperson, general	3	75.0	1	25.0	4[a]
Sewing machine operator	No reports on file				
Stenographer	18	90.0	2	10.0	20[a]
TV service and repairman	20	87.0	3	13.0	23
Upholsterer	No reports on file				
Waitress	11	78.6	3	21.4	14
Welder	65	89.0	8	11.0	73[a]
Total	368	85.6	62	14.4	430[a]

[a]Post training reports were not administered to all trainees.

6 months					12 months				
Employed		Unemployed		Total	Employed		Unemployed		Total
n	%	n	%		n	%	n	%	
6	75.0	2	25.0	8	5	100.0	-	-	5
22	95.7	1	4.3	23	17	89.5	2	10.5	19
81	90.0	9	10.0	90	79	96.3	3	3.7	82
2	66.7	1	33.3	3	2	100.0	-	-	2
26	86.7	4	13.3	30	26	86.7	4	13.3	30
29	87.9	4	12.1	33	29	96.7	1	3.3	30
28	87.5	4	12.5	32[a]	21	87.5	3	12.5	24
50	69.4	22	30.6	72[a]	71	81.6	16	18.4	87
47	90.4	5	9.6	52	47	95.9	2	4.1	49
26	92.9	2	7.1	28	22	91.7	2	8.3	24
26	100.0	-	-	26	24	96.0	1	4.0	26
21	100.0	-	-	21	19	100.0	-	-	19
51	100.0	-	-	51[a]	72	92.3	6	7.7	78
No reports on file					26	83.9	5	6.1	31
19	95.0	1	5.0	20[a]	26	88.9	1	11.1	27
23	100.0	-	-	23	17	100.0	-	-	17
No reports on file					11	100.0	-	-	11
13	100.0	-	-	13	8	80.0	2	20.0	10
127	100.0	-	-	127[a]	127	94.8	7	5.2	134
561	88.1	76	11.9	637[a]	649	92.2	55	7.8	704

As the data in Table 14 indicated, the unemployment rate 12 months after training dropped in 12 of the 19 occupational training areas. The overall unemployment rate dropped from 14.4 per cent to 7.8 per cent by the 12 month report period. It should be noted that those totals accompanied by a superscript 'a' are generally smaller because three and six month reports were not sent to graduates of several of the first MDTA projects.

All occupations having an unemployment rate of greater than 10 per cent as indicated by the 12 month report had 30 or less responses except for the key punch operator group. This group had 87 responses and an unemployment rate of 18.4 per cent. The six month follow-up report received 72 responses and indicated an unemployment rate of 30.6 per cent. The automobile mechanic group had the lowest unemployment rate of all occupations having more than 30 responses to the 12 month report. Only three or 3.7 per cent of the 82 responding graduates were unemployed 12 months after training.

A comparison of wages of those employed three, six and twelve months after training was made with some reservations. Tables 15, 16 and 17 were prepared to indicate wages earned rather than to determine whether training programs in respective occupations were successes or failures.

The columns titled 'other' include those graduates who were salaried, self-employed, on a commission or some other pay arrangement other than on an hourly basis. Some individuals responded to the questionnaires but did not give any indication of wage. These individuals are included in the column titled 'information not available' (INA). It should also be

Table 15. Hourly wage of those employed 3 months after training by occupational training area

Training area	1.00 or less		1.01 to 1.50		1.51 to 2.00	
	n	%	n	%	n	%
Appliance repairman	-	-	3	42.8	3	42.8
Auto body repairman	-	-	4	19.0	3	14.3
Auto mechanic	3	5.8	28	53.8	10	19.2
Beauty operator	-	-	1	100.0	-	-
Clerk, general	2	7.7	21	80.0	2	7.7
Draftsman	-	-	1	5.0	9	45.0
Farmhand	9	47.3	7	36.8	-	-
Key punch operator	4	13.3	12	40.0	9	30.0
Machine operator	1	4.0	1	4.0	8	32.0
Meat cutter	-	-	12	46.2	8	30.8
Nurse, practical	-	-	3	42.8	4	57.2
Programmer	-	-	-	-	1	5.8
Salesperson, general	1	33.3	1	33.3	-	-
Sewing machine operator	No reports on file					
Stenographer	1	5.6	15	83.3	2	11.1
TV service and repair	1	5.0	6	30.0	8	40.0
Upholsterer	No reports on file					
Waitress	10	90.9	1	9.1	-	-
Welder	1	1.5	12	18.5	21	32.3
Total	33	9.0	128	34.8	88	23.9

[a]Post training reports were not administered to all trainees

2.01 to 2.50		More than 2.50		Other		INA		Total
n	%	n	%	n	%	n	%	
-	-	1	14.4	-	-	-	-	7
2	9.5	3	14.3	9	42.9	-	-	21
5	9.6	3	5.8	1	1.9	2	3.9	52[a]
-	-	-	-	-	-	-	-	1
1	3.8	-	-	-	-	-	-	26
7	35.0	2	10.0	-	-	1	5.0	20[a]
1	5.3	1	5.3	1	5.3	-	-	19[a]
2	6.7	1	3.3	-	-	2	6.7	30[a]
7	28.0	6	24.0	-	-	2	8.0	25[a]
3	11.5	2	7.7	-	-	1	3.8	26
-	-	-	-	-	-	-	-	7[a]
8	47.1	6	35.3	-	-	2	11.8	17
-	-	-	-	1	33.3	-	-	3[a]
No reports on file								
-	-	-	-	-	-	-	-	18[a]
3	15.0	2	10.0	-	-	-	-	20
No reports on file								
-	-	-	-	-	-	-	-	11
21	32.3	8	12.3	-	-	2	3.1	65[a]
60	16.3	35	9.5	12	3.3	12	3.3	368[a]

Table 16. Hourly wage of those employed 6 months after training by occupational training area

Training area	1.00 or less		1.01 to 1.50		1.51 to 2.00	
	n	%	n	%	n	%
Appliance repairman	1	16.7	2	33.3	2	33.3
Auto body repairman	-	-	3	13.6	4	18.2
Auto mechanic	5	6.2	23	28.4	23	28.4
Beauty operator	1	50.0	1	50.0	-	-
Clerk, general	2	7.7	21	80.0	2	7.7
Draftsman	-	-	1	3.5	9	31.0
Farmhand	9	32.2	14	50.0	2	7.1
Key punch operator	3	6.0	26	52.0	10	20.0
Machine operator	1	2.1	5	10.6	14	29.8
Meat cutter	-	-	11	42.4	5	19.2
Nurse, practical	-	-	4	16.7	19	79.1
Programmer	-	-	-	-	1	5.8
Salesperson, general	2	4.9	17	41.4	5	12.2
Sewing machine operator	No reports on file					
Stenographer	1	5.3	14	73.7	4	21.0
TV service and repair	-	-	5	23.8	12	57.2
Upholsterer	No reports on file					
Waitress	7	77.8	2	22.2	-	-
Welder	2	1.8	12	10.6	35	31.0
Total	34	6.1	161	28.7	147	26.2

[a]Post training reports were not administered to all trainees

2.01 to 2.50		More than 2.50		Other		INA		Total
n	%	n	%	n	%	n	%	
-	-	1	16.7	-	-	-	-	6
4	18.2	4	18.2	7	31.8	-	-	22
9	11.1	6	7.4	10	12.3	5	6.2	81
-	-	-	-	-	-	-	-	2
1	3.8	-	-	-	-	-	-	26
16	55.2	3	10.3	-	-	-	-	29
-	-	1	3.6	-	-	2	7.1	28[a]
3	6.0	2	4.0	-	-	6	12.0	50[a]
8	17.0	9	19.2	1	2.1	9	19.2	47
4	15.4	4	15.4	1	3.8	1	3.8	26
1	4.2	-	-	-	-	-	-	24
7	41.2	7	41.2	-	-	2	11.8	17
2	4.9	2	4.9	13	31.7	-	-	41[a]
No reports on file								
-	-	-	-	-	-	-	-	19[a]
4	19.0	-	-	-	-	-	-	21
No reports on file								
-	-	-	-	-	-	-	-	9
41	36.2	19	16.8	1	0.9	3	2.7	113[a]
100	17.8	58	10.3	33	5.9	28	5.0	561[a]

Table 17. Hourly wage of those employed 12 months after training by occupational training area

Training area	1.00 or less		1.01 to 1.50		1.51 to 2.00	
	n	%	n	%	n	%
Appliance repairman	1	20.0	1	20.0	-	-
Auto body repairman	-	-	2	11.8	2	11.8
Auto mechanic	2	2.5	15	19.0	25	31.6
Beauty operator	-	-	-	-	2	100.0
Clerk, general	2	7.7	19	73.1	2	7.7
Draftsman	-	-	-	-	3	10.3
Farmhand	4	19.1	12	57.1	2	9.5
Key punch operator	3	4.2	35	49.3	11	15.5
Machine operator	1	2.1	3	6.4	12	25.5
Meat cutter	-	-	3	13.6	6	27.3
Nurse, practical	-	-	3	12.5	20	83.3
Programmer	-	-	-	-	3	15.8
Salesperson, general	5	6.9	30	41.7	8	11.1
Sewing machine operator	3	11.5	23	88.5	-	-
Stenographer	1	3.8	14	53.8	10	38.5
TV service and repair	-	-	2	11.8	7	41.2
Upholsterer	-	-	-	-	-	-
Waitress	6	75.0	2	25.0	-	-
Welder	1	0.8	6	4.7	25	19.6
Total	29	4.5	170	26.2	138	21.3

2.01 to 2.50		More than 2.50		Other		INA		Total
n	%	n	%	n	%	n	%	
1	20.0	1	20.0	1	20.0	-	-	5
1	5.9	6	35.3	6	35.3	-	-	17
20	25.3	8	10.1	5	6.3	4	5.1	79
-	-	-	-	-	-	-	-	2
2	7.7	-	-	1	3.8	-	-	26
20	69.0	6	20.7	-	-	-	-	29
1	4.8	2	9.5	-	-	-	-	21
5	7.0	5	7.0	-	-	12	16.9	71
7	14.9	16	34.0	-	-	8	17.0	47
6	27.3	5	22.7	1	4.5	1	4.5	22
1	4.2	-	-	-	-	-	-	24
7	36.8	8	42.1	-	-	1	5.3	19
3	4.2	4	5.5	21	29.2	1	1.4	72
-	-	-	-	-	-	-	-	26
1	3.8	-	-	-	-	-	-	26
4	23.5	4	23.5	-	-	-	-	17
11	100.0	-	-	-	-	-	-	11
-	-	-	-	-	-	-	-	8
58	45.7	31	24.4	3	2.4	3	2.4	127
148	22.8	96	14.8	38	5.9	30	4.6	649

noted that this table includes all wages reported, not only those who were employed in a position directly related to training.

Wage was not used as an indicator of success because there were so many other variables which could not be considered in this study. Geographic area of employment, community size and cost of living, family ties and many other factors influenced where a person became employed.

The trainees who completed either the programmer or welding program reported the highest hourly wage with 70.0 per cent of the welder graduates earning more than $2.00 per hour 12 months after training. One welder was earning $4.65 per hour one year after training. Draftsmen, machine operators, meat cutters and television service and repairmen were a few of the highest paid graduates one year after completing the program. One machine operator graduate was employed one full year at a job not related to his training for a low but consistent wage of 63 cents per hour.

Practically all occupations experienced a notable wage increase over the twelve month period. The waitress group was the lowest and indicated only slight variation. Tips were not included in their wage figures. The general clerk group was another area which showed very little wage increase from the first report to the third report.

At the time of the three month report 95 or 25.8 per cent of the reporting graduates were earning more than $2.00 per hour. According to the six month report 150 or 28.1 per cent of those employed were earning more than $2.00 per hour and by the twelve month report this figure increased to 254 or 37.6 per cent. It should be remembered that the

Table 18. Related or non-related employment of those employed three, six and twelve months after training

Training area	3 months				
	Related		Non-related		Total
	n	%	n	%	n
Appliance repairman	1	14.3	6	85.7	7
Auto body repairman	16	76.2	5	23.8	21
Auto mechanic	40	76.9	12	23.1	52[a]
Beauty operator	1	100.0	-	-	1
Clerk, general	22	84.6	4	15.4	26
Draftsman	18	90.0	2	10.0	20[a]
Farmhand	15	78.9	4	21.1	19[a]
Key punch operator	21	70.0	9	30.0	30[a]
Machine operator	18	72.0	7	28.0	25[a]
Meat Cutter	21	80.8	5	19.2	26
Nurse, practical	7	100.0	-	-	7[a]
Programmer	14	82.4	3	17.6	17
Salesperson, general	3	100.0	-	-	3[a]
Sewing machine operator	No reports on file				
Stenographer	15	83.3	3	16.7	18[a]
TV service and repair	12	60.0	8	40.0	20
Upholsterer	No reports on file				
Waitress	11	100.0	-	-	11
Welder	55	84.6	10	15.4	65[a]
Total	290	78.8	78	21.2	368[a]

[a]Post training reports were not administered to all trainees

6 months					12 months				
Related		Non-related		Total	Related		Non-related		Total
n	%	n	%	n	n	%	n	%	n
2	33.3	4	66.7	6	2	40.0	3	60.0	5
16	72.7	6	27.3	22	9	52.9	8	47.1	17
63	77.8	18	22.2	81	55	69.6	24	30.4	79
2	100.0	-	-	2	2	100.0	-	-	2
22	84.6	4	15.4	26	22	84.6	4	15.4	26
28	96.6	1	3.4	29	28	96.5	1	3.5	29
18	66.7	9	33.4	27[a]	12	57.1	9	42.9	21
37	64.0	13	26.0	50[a]	49	69.0	22	31.0	71
31	66.0	16	34.0	47	32	68.1	15	31.9	47
19	73.1	7	26.9	26	15	68.2	7	31.8	22
24	100.0	-	-	24	24	100.0	-	-	24
14	82.4	3	17.6	17	16	84.2	3	15.8	19
31	75.6	10	24.4	41[a]	58	80.6	14	19.4	72
No reports on file					18	69.2	8	20.8	26
16	84.2	3	15.8	19[a]	24	92.3	2	7.7	26
14	66.7	7	33.3	21	12	70.6	5	29.4	17
No reports on file					11	100.0	-	-	11
9	100.0	-	-	9	8	100.0	-	-	8
94	83.2	19	16.8	113[a]	98	77.2	29	22.8	127
440	78.6	120	21.4	560[a]	494	76.1	155	23.9	649

three and six month figures are smaller because of the absence of some MT-103 reports.

The data in Table 18 indicated some graduates became disinterested, dissatisfied or could not operate in the occupation for which they had been trained. When examining the non-related or related employment figures it was apparent that some groups were unable to maintain a high employment level within their respective occupational fields.

Three groups dropped in their related employment rate by at least 10 per cent from the three month to the twelve month report. They were the auto body repairman (-13.3 per cent), farmhand (-11.8 per cent) and meat cutter (-12.6 per cent) groups. Most groups remained relatively stable or experienced a slight increase in the related employment rate. The net change in the overall related employment rate was a decrease of 2.7 per cent.

The characteristics of those graduates unemployed twelve months after training were illustrated in Table 19. It seemed apparent that employment success was definitely influenced in part by various characteristics. It should be noted that the classification of graduates by characteristics was developed using the characteristics as reported at the beginning of the individual's training period except for the age classification, which reflects their age at the end of the program. The unemployment rate for the group 45 years of age and over was almost double that of the age group 21 and under. The older group experienced an unemployment rate of 11.3 per cent as compared to 5.7 per cent for the younger group. The rate for females was 12.6 per cent while the male

Table 19. Characteristics of the graduates unemployed twelve months after training

Characteristic	Total in labor force	Number unemployed	Unemployment rate - %
Age			
Less than 19	54	4	7.4
19 to 21	173	9	5.2
22 to 44	371	30	8.1
45 and over	106	12	11.3
Sex			
Male	475	26	5.5
Female	229	29	12.6
Handicapped			
Yes	100	12	12.0
No	604	43	7.1
Marital status			
Single	220	10	4.5
Married	408	33	8.1
Other	76	12	15.8
Number of dependents			
0	287	20	7.0
1 to 2	209	18	8.6
3 to 4	143	11	7.7
5 or more	65	6	9.2
Educational attainment			
Under 8	12	3	25.0
8	68	6	8.8
9 to 11	165	16	9.7
12	409	26	6.4
Over 12	50	4	8.0
Years of gainful employment			
Less than 3	215	17	7.9
3 to 9	265	17	6.4
10 and more	224	21	9.4

Table 19 (Continued)

Characteristic	Total in labor force	Number unemployed	Unemployment rate - %
Duration of unemployment			
Under 5 weeks	280	17	6.1
5 to 14 weeks	171	4	2.3
15 to 26 weeks	114	10	8.8
27 to 52 weeks	55	8	14.5
Over 52 weeks	84	16	19.1
Public assistance or unemployment insurance claimant			
Neither	522	39	7.5
Unemployment insurance	132	7	5.3
Public assistance	46	9	19.6
Both	4	0	0.0
Total	704	55	7.8

group had a rate of only 5.5 per cent.

Handicapped graduates had an unemployment rate five per cent higher than those reported as non-handicapped.

Family size did not seem to effect the employment success of the graduates.

Graduates who were divorced, separated or widowed had an unemployment rate of 15.8 per cent. The single group had a low rate of 4.5 per cent but this figure is probably reflecting the lower rate for the younger group.

Length of gainful employment prior to training appeared related to employment success but the duration of unemployment seemed to have the

strongest influence on whether or not a graduate was unemployed at the end of the twelve month period.

Under the MDTA program, a public assistance recipient is an applicant who, at the time the training is offered, is receiving financial aid from a Federal, State or local public assistance program. Approximately six per cent of all graduates were classified as public assistance recipients at the time of referral. This is less than the nine per cent at the national level. Nine or 19.6 per cent of those in the labor force and in the public assistance category were unemployed twelve months after training. Eight of the nine unemployed were women. The group which received neither public assistance nor unemployment insurance had an unemployment rate of 7.5 per cent as compared to 5.3 per cent for the group that was receiving unemployment insurance.

Test of hypotheses

The chi square technique was employed to determine if certain characteristics were related to whether or not a graduate was employed twelve months after training was completed. The graduates were classified by their age, sex, whether or not they were handicapped, marital status, number of dependents and education level attained. Other classifications used were years of gainful employment, duration of unemployment and whether or not they were receiving unemployment insurance or public assistance prior to training. This technique tested whether the distribution of responses of the graduates differed from frequencies expected on the basis of the null hypotheses.

The chi square test was used at the five per cent level and the one per cent level of significance to test the null hypothesis for each chi square contingency table. A significant difference refers to a value which exceeds the tabulated value (13, p. 423), with appropriate degrees of freedom at the five per cent level of significance. A highly significant difference refers to a value which exceeds the tabulated value at the one per cent level with the appropriate degrees of freedom.

Wert (13, p. 157) reported that chi square should not be employed whenever an expected cell frequency falls below five. Therefore, some data reported in the contingency tables have been grouped or eliminated.

Hypothesis one There were no differences in employment status among various age groups.

The calculated chi square value from the data in Table 20 was 3.459 with two degrees of freedom. This value was less than the five per cent value, 5.991, given in the chi square table (13, p. 423). Since the five per cent level had not been reached, evidence was insufficient to indicate any significant difference between age groups. The null hypothesis could not be rejected.

It should be noted that regrouping by age was necessary to eliminate cell frequencies less than five.

Hypothesis two There was no difference in employment status between the male and female graduate groups.

The chi square value of 10.849 with one degree of freedom calculated from the data in Table 21 was found to be larger than both the five per cent value, 3.841, and the one per cent value, 6.635. This indicated

Table 20. Number of graduates, by age, employed or unemployed twelve months after training, actual and expected

Age	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Less than 22	214	(209)	13	(18)	227	32.2
22 to 44	341	(342)	30	(29)	371	52.7
45 and over	94	(98)	12	(8)	106	15.1
Total	649		55		704	100.0

that a graduate's sex and employment status twelve months after training were related. The null hypothesis was rejected.

The data available indicated that there was a highly significant difference in the unemployment rate between the female and the male groups. A greater percentage of females than males were unemployed twelve months after training.

Table 21. Number of graduates, by sex, employed or unemployed twelve months after training, actual and expected.

Sex	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Male	449	(438)	26	(37)	475	67.5
Female	200	(211)	29	(18)	229	32.5
Total	649		55		704	100.0

Hypothesis three There was no difference in employment status between the handicapped and non-handicapped graduate groups.

A chi square value of 2.544, with one degree of freedom, was calculated from the data in Table 22. Since this value was less than the five per cent table value of 3.841, evidence was insufficient to indicate any significant difference in the employment success between the handicapped and the non-handicapped groups. The null hypothesis could not be rejected.

Table 22. Number of graduates, handicapped or non-handicapped, who were employed or unemployed twelve months after training, actual and expected

Handicapped	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Yes	88	(92)	12	(8)	100	14.2
No	561	(557)	43	(47)	604	85.8
Total	649		55		704	100.0

Hypothesis four There were no differences in employment status among marital status groupings.

The marital status indicated in Table 23 was reported at the beginning of the training program. The calculated chi square value of 9.669, with two degrees of freedom, was found to be greater than the five per cent value, 5.991, and the one per cent value, 9.210. The result

indicated that marital status and employment status twelve months after training were related. The null hypothesis was rejected.

Table 23. Number of graduates, by marital status, employed or unemployed twelve months after training, actual and expected

Marital status	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Single	210	(203)	10	(17)	220	31.2
Married	375	(376)	33	(32)	408	58.0
Other	64	(70)	12	(6)	76	10.8
Total	649		55		704	100.0

Hypothesis five There were no differences in employment status among graduates reporting varying numbers of dependents.

The chi square value of 0.7645, calculated from the data in Table 24 with two degrees of freedom, was found to be less than the five per cent value of 5.991. The evidence was insufficient to indicate any significant difference among the three groups reporting varying numbers of dependents. Therefore, the null hypothesis could not be rejected.

The graduates reporting five or more dependents were grouped with those reporting three to four dependents.

Table 24. Number of graduates, by the number of dependents reported, employed or unemployed twelve months after training, actual and expected

Number of Dependents	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
0	267	(264)	20	(23)	287	40.7
1 to 2	191	(193)	18	(16)	209	29.7
3 or more	191	(192)	17	(16)	208	29.6
Total	649		55		704	100.0

Hypothesis six There were no significant differences in employment status among graduates who completed various levels of education.

The information reported in Table 25 had to be reclassified to eliminate cell frequencies of less than five. The calculated chi square value was 3.459 with two degrees of freedom. Since this value was less than the five per cent table value of 5.991, with two degrees of freedom, there was not sufficient evidence to indicate a significant difference among the three groups. The null hypothesis could not be rejected.

Hypothesis seven There were no differences in employment status among graduates with varying lengths of gainful employment prior to training.

The calculated chi square value was 1.783. This value, with two degrees of freedom calculated from Table 26, was less than the five per cent table value, 5.991. Since the five per cent value had not been

Table 25. Number of graduates, by education level completed, employed or unemployed twelve months after training, actual and expected

Grades completed	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
8 or less	71	(74)	9	(6)	80	11.3
9 to 11	149	(152)	16	(13)	165	23.4
12 or more	429	(423)	30	(36)	459	65.3
Total	649		55		704	100.0

reached, evidence was insufficient to indicate any significant difference between employment status one year after training and length of gainful employment prior to training.

Table 26. Number of graduates, by length of gainful employment, employed or unemployed twelve months after training, actual and expected

Years of gainful employment	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Less than 3	198	(198)	17	(17)	215	30.5
3 to 9	248	(244)	17	(21)	265	37.7
10 and more	203	(207)	21	(17)	224	31.8
Total	649		55		704	100.0

Table 27. Number of graduates, by duration of unemployment, employed and unemployed twelve months after training, actual and expected

Duration of unemployment	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Under 15 weeks	430	(416)	21	(35)	451	64.0
15 to 52 weeks	151	(156)	18	(13)	169	24.1
Over 52 weeks	68	(77)	16	(7)	84	11.9
Total	649		55		704	100.0

Hypothesis eight There were no differences in employment status among graduates with varying lengths of unemployment periods prior to training.

The chi square value of 20.788, with two degrees of freedom, was calculated from the data in Table 27. The calculated value was found to be greater than both the five per cent value, 5.991, and the one per cent value, 9.210. The result indicated that the duration of unemployment prior to training and the employment status twelve months after training were related. The null hypothesis was rejected.

From the data available, it has been demonstrated that duration of unemployment prior to training has a bearing on employment success one year after training. Graduates with longer periods of unemployment experienced a higher unemployment rate than did those with shorter periods of unemployment.

Table 28. Number of graduates, by unemployment insurance or public assistance status, employed and unemployed twelve months after training, actual and expected

Public assistance or unemployment insurance	Employed		Unemployed		Total	
	Actual	Expected	Actual	Expected	n	%
Neither	483	(481)	39	(41)	522	74.6
Unemployment insurance	125	(122)	7	(10)	132	18.8
Public assistance	37	(42)	9	(4)	46	6.6
Total	645		55		700	100.0

Hypothesis nine There were no differences in employment status among groups receiving neither unemployment insurance nor public assistance and those receiving either unemployment insurance or public assistance.

The chi square value of 7.925, with two degrees of freedom, was greater than the five per cent table value of 5.991. Calculated from the data in Table 28, this figure indicated sufficient evidence to reject the null hypothesis at the five per cent significance level but not at the one per cent significance level. The table value for two degrees of freedom at the one per cent level was 9.210.

Graduates who had been on the public assistance rolls had a higher unemployment rate than the other two groups. The group which received both unemployment insurance and public assistance was not included because of the low number and none were unemployed twelve months after training.

Summary of chi square

The results of the testing of the characteristics of the graduates as to whether or not the graduates were employed or unemployed twelve months after training indicated there was: (a) a highly significant difference by sex, marital status and duration of unemployment prior to training, (b) a significant difference by unemployment insurance and public assistance status, but (c) no significant difference between age of graduate, handicapped or non-handicapped, number of dependents, education, length of gainful employment prior to training, and whether or not a graduate was employed one year after training.

Placement, Trainee Mobility and Follow-up Results

Graduates who responded to the MT-103 reports indicated the means used to obtain the job held at that point in time. Only the results of the twelve month report were used since the distribution did not vary significantly from one report period to the next.

The data in Table 29 indicated that 40.4 per cent found their current job through an Employment Service office while 48.2 per cent responded by checking the 'other' category. This would include friends, relatives and possibly fellow graduates.

Approximately 20 per cent of all employed graduates moved 50 miles or more to find employment. The information presented in Table 30 did not seem to indicate any obvious trend within individual occupations or in the total group. The occupational groups which did indicate notable changes were generally small in number, therefore, no inferences were drawn.

Table 29. Means of obtaining employment

Means	Number	Per cent
Employment service	262	40.4
Establishment where trained	30	4.6
School	20	3.1
Other	313	48.2
Not known	24	3.7
Total	649	100.0

The data in Table 31 indicated that 49 or 6.3 per cent of responding graduates had held no jobs which lasted 30 days or more during the first year after training. Almost 60 per cent of those responding indicated only one job lasting 30 days or more while 23.4 per cent had held two jobs lasting at least that length of time. One individual was reported as having had 11 jobs which lasted at least 30 days during the first year after training.

An attempt was made to determine any relationships between characteristics or occupational training areas and the number of jobs held which lasted 30 days or more. This information was discarded because it appeared rather meaningless. There were too many unconsidered factors which undoubtedly affected the responses.

Table 30. Number of employed graduates who moved 50 miles or more to take job as reported three, six and twelve months after training

Training area	3 months employed n	3 months moved %	6 months employed n	6 months moved %	12 months employed n	12 months moved %
Appliance repairman	7	-	6	-	5	40.0
Auto body repairman	21	28.6	22	18.2	17	29.4
Auto mechanic	52[a]	15.4	81	16.1	79	19.0
Beauty operator	1	-	2	-	2	-
Clerk, general	26	-	26	-	26	3.8
Draftsman	20[a]	35.0	29	31.0	29	27.6
Farmhand	19[a]	31.6	27[a]	22.2	21	4.8
Key punch operator	30[a]	53.4	50[a]	44.0	71	43.7
Machine operator	25[a]	32.0	47	31.9	47	29.8
Meat cutter	26	14.3	26	26.9	22	18.2
Nurse, practical	7[a]	28.6	24	25.0	24	20.8
Programmer	17	35.3	17	41.2	19	36.8
Salesperson, general	3[a]	-	41[a]	12.2	72	13.9
Sewing machine operator	No reports on file				26	3.8
Stenographer	18[a]	5.5	19[a]	5.3	26	3.8
TV service and repair	20	30.0	21	33.3	17	52.9
Upholsterer	No reports on file				11	18.2
Waitress	11	-	9	-	8	-
Welder	65[a]	10.8	113[a]	11.5	127	12.6
Total	368[a]	20.9	560[a]	20.5	649	20.3

[a]Post training reports were not administered to all trainees

Table 31. Number of jobs held during first year after training which lasted 30 days or more

Number of jobs	Number	Per cent
0	49	6.3
1	449	58.1
2	181	23.4
3 or more	94	12.2
Total	773	100.0

The MT-103 follow-up form was not administered during the initial phases of the Iowa program. Several of the previous tables were affected by this and these were appropriately footnoted. Table 32 shows the number of reports returned by graduates three, six and twelve months after training. Many graduates could not be located because forwarding addresses were not available. These cases were included in the 'no response received' group.

Table 32. Per cent of return on MT-103 follow-up reports

Report period months	Reports sent n	Response received n	Response received %	No response received n	No response received %
3	568	463	81.5	105	18.5
6	819	674	82.3	145	17.7
12	1002	773	77.2	229	22.8

SUMMARY OF FINDINGS

The objectives of this study were to compile a usable report of the graduates of the MDTA program in Iowa, present a detailed descriptive analysis of these graduates and attempt to determine factors which possibly affect employment success. Information had been gathered on these graduates prior to this study but had never been presented in a usable form. Several trainees may have found related or non-related employment before the program was actually completed but these were not included because of inadequate follow-up information.

General Characteristics

The first section of the study included general characteristics of the 1002 trainees who had completed an institutional training program in Iowa prior to July 1, 1965. This information was obtained from the standard Characteristics of Trainees report, i.e., the MT-101.

More than 34 per cent of all trainees were less than 22 years of age at the completion of their respective training programs. Approximately 14 per cent were 45 years of age or older. The female trainees were generally younger than the male trainees with 45.1 per cent less than 22 years of age as compared to 29.1 per cent for the male group.

Only two per cent of all graduates had completed less than eight years of formal education while 56 per cent had completed high school. Female graduates tended to be better educated than male graduates. Seventy-seven and one-half per cent of the females had completed high school and 55.8 per cent of the male graduates held a high school diploma.

Most female graduates had no dependents at the beginning of their training program. Two hundred twenty-six or 72.7 per cent of the women reported no dependents, 17.5 per cent reported one or two dependents and only 10.8 per cent reported three or more dependents. More male trainees had larger families than did female trainees. Of the male trainee group, 36.4 per cent reported three or more dependents.

After examining the marital status of all graduates it was found that almost three-fourths of the male group were married at the beginning of training and only one-third of the female graduates were married.

Handicapped persons constituted only 14.4 per cent of all graduates. Only 2.9 per cent of all graduates were handicapped females. The classification of handicapped persons appeared to be questionable since some classifying officials only considered a person handicapped if the impairment adversely affected the individual's performance in the chosen occupation.

The female trainees did not have as many years of gainful employment prior to training as did the male group. More than one-fourth of the female group had been unemployed more than 52 weeks while only 4.5 per cent of the males had been without work that length of time.

The data concerning unemployment insurance claimants and public assistance recipients were questionable. Some individuals referred for training may have been on the unemployment roll just prior to referral but removed from the roll at the time of referral. Therefore, no conclusions were drawn concerning this group.

Employment Status

The data presented in the second section were taken from the follow-up reports, referred to as the MT-103 forms. These forms were administered three, six and twelve months after training was completed.

The total male graduate population had employment rates of 86.4 per cent, 91.2 per cent and 94.6 per cent; three, six and twelve months after training, respectively. The younger male trainee group (21 years of age or less) had the highest employment rate for all three report periods.

Female graduates had an employment rate of 87.4 per cent twelve months after training. At this report period the female group 45 years of age and over had the highest rate (93.2 per cent) of any group. The graduates who were 21 years of age or younger had an employment rate of 90.0 per cent.

The employment rate of all graduates indicated an increase in employment success from the first to the last follow-up report. Six hundred forty-nine or 92.3 per cent of all graduates in the labor force were employed twelve months after training. This was an increase of 6.7 per cent from the three month period. Each age group showed an increase in employment but the '45 and over' age group had the greatest increase (+12.5 per cent). The older group experienced almost average success by the twelve month report but had more difficulty in finding employment immediately after training than did the younger graduates.

Graduates with a high school diploma were experiencing a higher employment rate twelve months after training than were those with less than or more than a high school education. No conclusions were drawn as to

why those with more than a high school diploma had a lower employment rate than the group that had completed only twelve years of education. It should be noted that the number of graduates in the group with more than 12 years of school was relatively small.

Employment rates by occupation were also illustrated but here also the number of graduates in each group was sometimes quite small. Generally the occupations which were predominately for females had the lowest employment rate.

Wages earned three, six and twelve months after training were also examined but due to the multitude of factors which were not considered in this study, no inferences were drawn.

The graduates who found employment within the field for which they were trained generally stayed in that occupation. While some shifting from related to non-related employment did occur, the shift for the total group was only 2.7 per cent. This shift occurred between the three and the twelve month report periods.

The characteristics of those graduates who were in the labor force and unemployed twelve months after training were illustrated in Table 19, pages 48 and 49. Those characteristics which had the greatest difference in unemployment rates within each group were age, sex, handicapped, marital status, educational attainment, years of gainful employment, and duration of unemployment. The groups which had the highest unemployment rates were those graduates 45 years of age and over, female, handicapped, divorced, separated or widowed, less than 12 years of schooling, more than nine years of gainful employment, and those who were unemployed more

than 26 weeks prior to training.

An attempt was made to determine characteristics which were related to employment status twelve months after training. The chi square technique was employed to determine whether the distribution of responses from the graduates differed from frequencies expected on the basis of the null hypotheses.

The testing indicated that three characteristics had a highly significant relationship with the employment or unemployment of a graduate one year after completion of a training program. These characteristics were (1) sex of graduate, (2) marital status at time of training, and (3) duration of unemployment prior to training. Female graduates who were divorced, separated or widowed and trainees who were unemployed more than 26 weeks prior to training, had the highest unemployment rates in these three categories.

The testing also indicated that there was a significant relationship between employment status twelve months after training and whether or not a graduate was an unemployment insurance claimant, a public assistance recipient or neither of the aforementioned prior to training. Graduates who received some form of public assistance prior to training experienced the highest unemployment rate in this category.

No significant relationship was indicated between five of the characteristics and whether or not a graduate was employed one year after training. These characteristics were (1) age, (2) handicapped or non-handicapped, (3) number of dependents at time of training, (4) education level completed prior to training, and (5) length of gainful

employment prior to training.

Placement, Trainee Mobility and Follow-up Results

Two hundred sixty-two or 40.4 per cent of those graduates employed twelve months after training obtained their jobs through an Employment Service office while 48.2 per cent used some means other than Employment Service, establishment where trained or school.

Approximately one-fifth of all graduates employed twelve months after training had moved 50 miles or more to obtain employment. It did not appear that this indicated any ineffectiveness of the program due to the extremely mobile population.

At least three-fourths of the graduates to whom follow-up reports were sent responded three, six and twelve months after training. Approximately 40 per cent of the graduates did not receive a three month report because the MT-103 report was not administered during the early phases of the program in Iowa.

DISCUSSION

The analysis of the MDTA training program in Iowa included 1002 trainees who completed training projects between the day the program started and July 1, 1965. This provided the researcher with complete follow-up reports on these individuals in August 1966. It would have been advantageous to continue collecting data from later graduates. The cumbersome system used by the collecting agency, however, meant more work than time would allow.

The investigator sought answers to the following questions:

1. What were the characteristics of trainees who completed training programs prior to July 1, 1965?
2. What were graduates doing after training?
3. Were there factors which had a bearing on employment success?
4. Where did graduates go after training and what means did they use to find jobs?
5. What information is available which could supply answers to the above mentioned questions?

It was the purpose of this discussion to explore some of the problems which arose and discuss some observations which were made during this study. Hopefully, the insights developed by the investigator would prove helpful to the administration of future programs.

After the primary objectives of the study were established, possible sources of data were examined. The Manpower Section of the Department of Public Instruction of Iowa supplied the investigator with printed summary

sheets which were prepared by the United States Department of Labor. This material presented the total statewide program but was too incongruous to be usable. Data did not agree with information at the state level and programs were included which did not even exist in Iowa at that time. It appeared that the feedback between State and Federal offices was not totally successful. For example, the report from the Federal office included the results of a training project in Iowa for umbrella repairmen. No such project had existed or was being planned in Iowa.

A classification of trainees, which was used in the Federal reports, was whether a trainee was white or non-white. The investigator inquired at the State office and at local offices of the Iowa Employment Security Commission but was unable to find the source of such a classification. It was the researcher's feelings that such a classification could be helpful but the source of this classification was questioned. Methods used in communicating ideas were challenged. However, no satisfactory responses were obtained from State or local officials.

Referral reports which included characteristics of trainees and follow-up reports were located at the Iowa Employment Security Commission office building in Des Moines, Iowa. These standardized reports were being administered by the local employment offices and were returned to the state office. As the forms were received several items of interest were tallied and then the reports were placed in permanent files and apparently were put to very little use afterward. It was decided that these reports were the most reliable and readily accessible source of information.

Characteristics used in this study were generally classified similar to those included in the standardized form (MT-101) used by the employment office. If the graduates of the MDTA program were a representative sample of the total trainee population, it appeared that the training program was not serving a cross-section of the unemployed population.

It was the investigator's impression that many of the hard-core unemployed were unable to meet the entrance requirements for many of the training programs. The lack of basic education seemed to be a deterring factor for many who were unemployable and otherwise eligible for training. Most programs required some high school or a basic education of reading, writing and arithmetic. Since many did not possess the needed skills, they were ruled out before given a chance in a program. A partial list of occupational training program descriptions is located in the appendix.

Of those trainees who completed a training program during the period included in this study, only 81 or 8.1 per cent were less than 19 years of age. By comparison, the estimated annual unemployment figures for 1962 through 1965, as reported in the 1967 Manpower Report of the President (8, p. 215), indicated that approximately 25 per cent of those unemployed each year were under 20 years of age. For the 45 years and older age group, 139 or 13.9 per cent of the trainees were in this category. For this group the United States average was approximately 23 per cent.

The above two comparisons could be misleading since the population being investigated was not necessarily representative of the national population and the age grouping differed slightly. However, if the

graduate group was representative of the trainee group, these figures do substantiate Hepler's (12, p. 7) findings, i.e., the trainees were not representative of the unemployed population.

When comparing educational attainment of the Iowa or national trainee group with the education attainment of the unemployed group, it was apparent that the MDTA program did not have a great impact on the under educated unemployed. Only two per cent of the trainees had completed less than eighth grade while 56 per cent had a high school education. Hepler (12, p. 20) reported that in 1962, 20.2 per cent of the unemployed in the United States had less than an eighth grade education and in 1963, three per cent of the MDTA trainees had less than eight years of schooling. The high school graduates were selected for training at a rate nearly double their proportion among all unemployed. More than two-thirds of the female trainees in Iowa had completed high school.

The younger male trainees had a higher employment rate after training than did the older group. This difference seemed normal since employers generally prefer someone who is apt to return more to the business in the long run. The younger graduates probably had a wider selection of employment opportunities because of fewer family ties and financial obligations. The relatively high percentage (11.7 per cent) of male graduates under 22 years of age who were reported as not being in the labor force was probably due to the fact that many of this group were drafted into military service upon the completion of their training program.

It appeared that even though the MDTA program was experiencing a

high level of success, it was missing an opportunity to aid individuals who were at the lower end of the unemployed list. It was felt that preference was being given to the "cream-of-the-crop" of the unemployed population, so to speak. The investigator would dislike seeing the Manpower program officials developing an attitude similar to that of many secondary school officials, that is, concentrating the program toward the more gifted and letting the less privileged work out their own problems.

It seemed that there were inconsistencies in the classification of referrals by classifying officials. Some of these inconsistencies would be expected but more effective communication between local offices and the state office would likely reduce these to a minimum.

If the employment rate of the graduates in the labor force twelve months after training can be used as an indicator of success, the Iowa program would probably be termed successful. Ninety-two per cent of all graduates in the labor force were employed one year after training. As reported in the Review of Literature, by the end of 1965, Iowa ranked third among all states in the number of institutional trainees securing employment through the MDTA program.

The investigator was not in a position to determine whether or not individual training projects were successful. Criteria had not been established and it was not an objective of this study to set forth a list of criteria which would quickly determine success or failure.

An attempt was made to determine factors which had a relationship with whether or not graduates were employed one year after training.

Utilizing the chi square technique, it was found that there was a relationship between certain characteristics and employment success. The characteristics of marital status, sex and duration of unemployment prior to training had a highly significant relationship with employment status.

Single graduates, male graduates and those with shorter periods of unemployment prior to training had the lowest unemployment rates in these categories. Single graduates were probably more mobile and more apt to take a chance with a job. Female graduates may have classified themselves as being in the labor force but may not have been actively looking due to marriage, pregnancy or dissatisfaction with opportunities. Unemployment may have become a habit with some people. The long-term unemployed may have had problems in applying for employment because of mental blocks which developed during this period of inactivity. Steps should have been taken to diminish these problems for the long-term unemployed.

Whether or not a trainee received unemployment insurance or public assistance prior to training had a significant relationship with employment status. The public assistance recipient group had the highest unemployment rate. Most of the recipients were women. This would reflect the findings concerning the female group.

The characteristics which did not prove to have a significant relationship with employment success were age, handicapped or non-handicapped, number of dependents, education and length of gainful employment prior to training. The researcher was surprised that a relationship was not indicated between employment and age or education. The limitations of the chi square technique were known. And even though the cases were mutually

exclusive some results could be questioned because of many factors effecting employment success which could not be considered in this study.

One of the most common criticisms of governmental agencies has been that communication barriers often exist between departments. This seems to be true for this program also. For example, a training project is established and the local employment office makes referrals and administers follow-up reports to those trainees who complete the project. The reports are then sent to the State office. Little feedback, if any, is given to the local offices as to what the graduates of a particular project are doing twelve months after training or what wages automobile mechanics can expect to earn three months after training. It is difficult to imagine how officials know what types of projects are worth continuing or what training is being effective if nothing is being done with the follow-up information available.

Page 87 of the Appendix is a sample of comments made by local training project officials and employment office officials. The investigator was unable to determine any usage or communication concerning these comments. It was the investigator's impression that many times a program was started strictly because of a need for employable persons in an occupational area. Consideration was not always given to the individual nor was it given to the results of previous programs.

It is hoped that more will come of this study than just the figures as illustrated in the tables. Information is presently available which would allow Manpower administrators to be constantly aware of the results of the various projects. This could be done simply with a more effective

reporting system and an improved communication system. Proper coding and recording of information could provide administrators with an almost immediate source of knowledge for the management of future programs. This would be only one of many ways to increase the effectiveness of the Manpower program.

A more satisfying goal of this study would be one of knowing that the information as presented in this study would encourage the growth of the present program and encourage future trainees to take advantage of the opportunities that await them.

There are many factors which determine a country's capacity for economic growth. The availability of natural resources, the ability to attract capital and the development of a stable government are all important. Yet, in the final analysis, the most critical factor is manpower.

Economic growth is dependent upon finding, training and effectively motivating human beings. If a nation wishes to grow and develop, it must have carpenters, industrialists, service station attendents, scientists, engineers, skilled craftsmen, clerks and productive manual workers for public and private service. A nation must invest in the upgrading of human resources into a highly talented work force in order that it might build the economic complexes which modern development requires.

SELECTED REFERENCES

1. Iowa Department of Public Instruction. Manpower development program gets results in Iowa. Iowa Department of Public Instruction Educational Bulletin 36, Number 5: 3. 1967.

2. Manpower Development and Training Act of 1962, as amended, 42 U.S.C. § 2571-2620. 1965.

3. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. Graduates of the Norfolk Project 1 year later. United States Department of Labor Manpower Evaluation Report 5. 1965.

4. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. MDTA training program: comparison of 1963 and 1964. United States Department of Labor Manpower Evaluation Report 4. 1964.

5. United States Department of Labor. Manpower Administration. Office of Manpower Policy, Evaluation, and Research. Training in service occupations under the Manpower Development and Training Act. United States Department of Labor Manpower Research Bulletin 9. 1966.

6. United States Department of Labor. Manpower Administration. Office of Manpower Policy, Evaluation, and Research. Training of public assistance recipients under the MDTA. United States Department of Labor Manpower Evaluation Report 6. 1966.

7. United States Department of Labor. Manpower Administration. Office of Manpower Policy, Evaluation, and Research. Unused manpower: the Nation's loss. United States Department of Labor Manpower Research Bulletin 10. 1966.

8. United States Department of Labor. Manpower Administration. Office of Manpower Policy, Evaluation, and Research. Manpower report of the President and a report on manpower requirements, resources, utilization, and training. Washington, D.C., author. 1967.

9. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. Manpower and training: trends, outlook, programs. United States Department of Labor Manpower Research Bulletin 2. 1963.

10. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. Occupational mobility through MDTA training. United States Department of Labor Manpower Evaluation Report 2. 1964.

11. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. Occupational training of women under the Manpower Development and Training Act. United States Department of Labor Manpower Evaluation Report 3. 1964.

12. United States Department of Labor. Manpower Administration. Office of Manpower, Automation and Training. Training disadvantaged groups under the Manpower Development and Training Act. United States Department of Labor Manpower Evaluation Report 1. 1963.

13. Wert, James E., Neidt, Charles O., and Ahmann, J. Stanley. Statistical methods in educational and psychological research. New York, New York, Appleton-Century-Crofts, Inc. 1954.

APPENDIX

Definition of Terms

The following is a partial list of terms and abbreviations used in this study. Definitions included are not necessarily those of MDTA, Department of Labor or Iowa Employment Security Commission officials and are included only as references to this study.

Employment rate

The proportion of the population in the labor force who are gainfully employed. Usually expressed as a percentage.

Graduate

A person who completed an MDTA training project. This study included only trainees who had graduated. Therefore, the terms graduate and trainee are used interchangeably when referring to the population included in this study.

Hard-core unemployed

Persons unable to find employment due to such factors as insufficient education, inadequate skills or undesirable personality traits.

INA

Information was not available.

Long-term unemployed

Individuals who have been continually unemployed for a period of 15 weeks or more.

MDTA

The Manpower Development and Training Act. The terms MDTA program and Manpower program are used interchangeably.

Occupational training area

A program aimed at the preparation of an individual for a specific job, such as automobile mechanic or meat cutter.

Trainee

An individual who is engaged in an MDTA training program. See Graduate.

Training program

A course of study established for the training of an individual in preparation for employment in a specific occupational area.

Training project

A terminal course within a training program. A designated period established for the training of a certain number of individuals in a specified occupational area.

Undereducated

Persons having less than an eighth grade education. Also refers to a person lacking a basic education.

Underemployed

Those able to find only part-time work though they would like to work full time. Also those employed below their actual potential skill level.

Unemployment rate

The proportion of the population in the labor force who are not gainfully employed. Usually expressed as a percentage.

Descriptions of Occupational Training Programs

The following includes brief descriptions of several of the occupational training areas offered during the period covered by this study. This is only a partial list since many of the programs were not written up in a formal resumé and several programs utilized established courses in private or public facilities. Most descriptions are a brief statement of performance required in the respective employment and work performed during the respective training period. Programs generally were not as extensive as descriptions may indicate but simply prepared an individual for an entry position in one of the fields covered.

Appliance repairman (household)

The 32 week program requires the trainee to repair home and industrial gas and electric appliances, with major emphasis on larger appliances such as air conditioners, washers, driers, refrigerators, etc. Trainee may be employed in a central appliance repair shop or may be employed as a house serviceman.

Automobile body repairman

Twenty-five week program which trains the student in the areas of body restoration, refurbishment and the repair or replacement of metal and plastic body parts. Includes filling, sanding, removal of parts, painting, refinishing and welding. Also shop management, glass service, front-end alignment and frame straightening and repair.

Automobile mechanic

Forty-two week program which prepares the student to perform a variety of tasks on the mechanical, electrical and body parts of gasoline

and diesel powered motor vehicles. A trainee completing program will have a working knowledge of general automotive propulsion, steering, braking, fuel and electrical systems and ability to use test equipment and machine tools to repair automobiles.

Draftsman, mechanical

Program provides individual with working knowledge of drafting, instruments, principles of projection, sketching, revolution, dimensioning, developments and standard abbreviations. Student will prepare clear, complete and accurate working plans and detail drawings from rough or detailed sketches or notes of engineering or manufacturing processes according to specified dimensions. Program is 20 weeks in length.

Farmhand, general

Trainee performs a variety of jobs such as tilling, fertilizing, plowing, harrowing, cultivating, spraying, irrigating and harvesting of vegetables, grains, fruit and fodder. During the 18 week program, student will become knowledgeable in the operation and minor maintenance of farm machinery, and in subjects such as fertilizers, crop rotation, pesticides, herd feeding and animal antibiotics.

Machine operator

Program will be from 20 to 40 weeks in length, during which trainee will become acquainted with such machines as the turret lathe, engine lathe, milling machine, grinder, shaper and drill press. Trainees may be hired as general machine operators or may be required to specialize on one machine.

Programmer, business

This is a 50 week training program which enables the student to develop and write a set of specific instructions which direct each step a computer follows in computing, comparing, moving and otherwise processing data to solve business or scientific problems or to perform bookkeeping and accounting work.

TV service and repairman

The occupation requires a basic knowledge of principles of receivers, AM/FM, amplifiers, power units, and circuits of most commercial television sets. During the 40 week program, the trainee will repair and adjust radio and television receivers.

Welder, combination

The 16 week program will acquaint the trainee with various types of welding equipment, their use and their care. The trainee will learn to operate electric, oxy-acetylene and inert gas welding equipment to fuse metal parts together by melting both the surface or edges to be joined and the welding rod.

Occupational Titles with New and Old D.O.T. Numbers

The old Dictionary of Occupational Titles code numbers were used on most reports. The following is a list of the occupational titles used and the new and old D.O.T. numbers. Occupations which are grouped together by single spacing indicate those areas which were grouped for research purposes. This was necessary because some areas included only a few trainees.

Title	New D.O.T.	Old D.O.T.
Automobile body repairman	807.381	5-81.510
Automobile mechanic	620.281	5-81.010
Automobile-service mechanic	620.381	5-81.015
Beauty operator (cosmetologist)	332.271	2-32.15
Clerk, general office	219.388	1-05.01
Draftsman, mechanical	007.281	0-48.18
Draftsman, structural	005.281	0-48.25
Farmhand, general	421.883	3-16.10
Household-appliance repairman	827.281	5-83.043
Key punch operator	213.582	1-25.62
Machine operator	616.380	6-78.905
Meat cutter	316.884	5-58.100
Nurse, practical	354.878	2-38.20
Nurse, licensed practical	079.378	0-52.83
Programmer, business	020.188	0-69.981
Salesperson, general	289.458	1-75.71
Sewing machine operator	787.782	6-27.530

Title	New D.O.T.	Old D.O.T.
Stenographer	202.388	1-37.12
TV service and repairman	720.281	5-83.416
Upholsterer II	780.381	4-35.720
Waitress	311.878	2-27.12
Welder, arc	810.884	4-85.020
Welder, combination	812.884	4-85.040

Comments by Program and Employment Officials

Comments by program and employment officials, regarding various training projects were included with the transmittal of the MT-103 reports to the Iowa Employment Security Commission office. The following is a sampling of these remarks by respective training areas.

Clerk, general office

"The economic factors of the Mason City area have been such to warrant this type of training and we show continued need of it. A large number of this group were former ADC members and the training has taken a large percentage off these rolls."

"We have had, we feel, a great deal of success in the placement of applicants who we considered definitely a hard-core type of applicant."

Household-appliance repairman

"Prospective employers have considered the quality of trainees to be below their specifications. As a result these men are working on non-related jobs."

Nurse, practical

"All trainees secured jobs. Most had job offers before training was completed."

"Well-trained LPN's should not have trouble locating satisfactory work. A demand in the area for LPN's is constant."

Stenographer

"This group which graduated ten from the class are all working on permanent jobs except for one individual."

"There were no problems in placing these trainees and we feel there is still a strong need for this type of trained individual. We have received a number of favorable comments from employers utilizing these trained stenographers."

"This group has been very enthusiastic about the type of training they have received and that we have given them a very valuable service."

TV service and repairman

"The suddenly increasing demand for color televisions and also the increase in government contracts to private industry related to basic electronics in the past year have created many new job openings in this and related areas."

"Most of those willing to relocate seem to have had better chances for using their new skill than those who weren't."

"Some students have been reluctant to relocate feeling the salaries offered for entry jobs were not enough to move. Therefore, some have taken other jobs."

"Entry salaries for radio and TV repairmen were such that most students were reluctant to relocate and there were very few local openings at the time of graduation."

"Some students have since found higher paying jobs in other business and industry and are now reluctant to change."

Waitress

"Qualified waitresses are always in demand."

"The unemployed trainees are so because of choice, not because of lacking work skills."

Welder

"Increased employment rate in manufacturing has created a great demand for skilled workers."

"Demand for qualified welders continues strong."

PROGRAM: MDTA — 1, ARA — 2, Other — 4

TYPE OF ACTIVITY: Instit. — 1, OJT — 2, E&D — 4; Basic Ed. — 8, Pre-Voc. — 16, Other — 32

CHARACTERISTICS OF TRAINEES
Under the MDTA and the ARA

89

D/L-D/HEW MT-101 (Rev. 7-64)
Form approved.
Budget Bureau No. 44-R1202.1.

A. 1. State _____ (Code) 2. L.O. _____ (No.) 3. Project No. _____ Section No. _____

4. Occupation _____ D.O.T. Code _____

5. Name _____ (Last) _____ (First) _____ (Initial) 6. SSA No. _____

7. County of residence _____ (Code)

8. Date of birth: _____ (Mo. and year) 9. Sex: Male — 1, Female — 2 10. Handicapped: Yes — 1, No — 2

11. Prior military status: Veteran — 1, Peacetime service — 2, Rejectee — 3, Other nonvet — 4, Not known — 5

12. Marital status: Single — 1, Married — 2, Other — 4

13. Primary wage earner: Yes — 1 No — 2

14. Family status: Head of family or Head of household: Yes — 1 No — 2

15. Number of dependents: — 0 — 1 — 2 — 3 — 4 — 5 and over

B. 1. Highest grade completed:

Code	0	1	2	3	4	5	6	Code	College:	7	8	9
Grade	0	1 2 3 4	5	6 7	8	9 10 11	12	Year		1 2 3	4	4+

2. Primary occupation _____ D.O.T. Code _____

How long worked in *(Months)* _____ When last worked in *(Month and year)* _____

C. 1. Did applicant express willingness to accept job out of area? Yes — 1 No — 2

2. Referral to training or services: Accepted — 1 Refused — 2

3. Enrolled: Yes — 1 No — 2

5. Was reason considered: For good cause — 1 Not for good cause — 2

4. Reason for refusal of referral or failure to enroll: Obtained employment — 1, Moved from area — 2, Illness (include preg.) — 3, Not interested — 4, Poor location or hours of training — 5, Insufficient allowance for training — 6, Not available (in school, Armed Forces) — 7, No one to look after family — 9, Reason not known — 0, Other *(Specify)* _____ — 8

D. 1. At time training offered, applicant was:
- a. Underemployed — 0
  - 35–39 hours per week and less than full time — 1
  - Less than 35 hours per week — 2
  - Under skill level — 4
  - Impending technological layoff — 8
- b. Reentrant to labor force — 64
- c. Unemployed — 16
  - Weeks unemployed: Less than 5 — 1, 5–14 — 2, 15–26 — 3, 27–52 — 4, Over 52 — 5
- d. Farm worker — 32

2. Years of gainful employment: Under 2 — 0, 2 — 1, 3–9 — 2, 10 or more — 3

3. Unemployment insurance status: Claimant — 1 Nonclaimant — 2

4. Public assistance status: Recipient — 1 Nonrecipient — 2

5. As defined for reimbursement of training costs, applicant is: Unemployed — 1 Other — 2

6. Last regular employment:
- a. Occupation _____ D.O.T. Code _____
- b. Industry _____ S.I.C. _____
- c. Straight-time average hourly earnings $ _____

E. Eligible for allowance *(Not applicable for ARA)*:

1. Regular training: Yes — 1 Augmented — 3 No — 2

2. Youth training: Yes — 1 No — 2

3. Subsistence-transportation: Yes — 1 No — 2

F. For youth:

1. What was the most important reason for your leaving school? *(Check only one)*

Graduated from 12th grade — 0, Illness — 1, Had to support self — 2, Had to support family — 3, Preferred work to school — 4, Because of low marks in school — 5, Had to work on family farm or in family business — 6, Trouble with teachers or school authorities — 7, Marriage or pregnancy — 8, Other — 9

(Specify) _____

2. Living with parents (either own or spouse's)? Yes — 1 No — 2

3. Highest grade of regular school father ever completed?

Code	0	1	2	3	4	5	6	Code	College:	7	8	9
Grade	0	1 2 3 4	5	6 7	8	9 10 11	12	Year		1 2 3	4	4+

☆ U.S. GOVERNMENT PRINTING OFFICE: 1965—766-351

DL/HEW FORM MT-103
MDTA ..... 1 Instit. ..... 1 Basic Ed..... 8
ARA ..... 2 OJT ..... 2 Pre. Voc.....16
Other ..... 3 E and D ..... 4 Other 32

POST TRAINING REPORT
90

Bud. Bur. No. 44-R1246
Expires 6/30/65

State _____ (Name) _____ (Code)
Project Number _____
Section Number _____

A. IDENTIFICATION _____

1. Name _____ (Last) (First) (Initial) 2. S.S. No. _____

3. Date of Birth _____ (Month/Year) 4. Occupation For Which Trained _____ D.O.T. Code _____

5. Report Number _____1 _____2 _____3 For reference week ending _____ (Month/Day/Year)

6. Source of Data: Trainee or Trainee's Family _____ (1); MT-103a _____ (2); L.O. Records _____ (3); Could Not Locate Trainee _____ (4)

B. STATUS _____

1. Work History Since Training
   a. Total Weeks Since Training _____
      (1) Weeks Totally Unemployed _____
      (2) Weeks In Which Employed _____
      (1) and (2) should add to total
   b. Number of Jobs Lasting 30 Days or More Since Training _____
      (1) Training Related Jobs _____
      (2) Non-Training Related Jobs _____
      (3) Information Not Known _____
   c. Number of Placements Through ES _____

If Other than Zero → During Last Month
(a) Has Individual Turned Down Offer of a Training Related Job
Yes ___1 No ___0
(b) If Yes, Check 1 or More Reasons
Hours Undesirable ___1
Pay Below Normal for Occupation ___2
Couldn't Afford to Move ___4
Unwilling to Move ___8
Other _____ ___16
(Explain) _____

If Other than Zero →
(a) Reason for Leaving Last Job Lasting 30 Days or More
Did Not Leave a Job ___0
Slack Work ___1
Plant Shut Down ___2
Illness ___3
Other ___4
Unknown ___9

2. Current Labor Force Status
   a. Employed _____ 1
   b. Unemployed _____ 2
   c. Not in Labor Force:
      Keeping House ___3 Illness ___5
      In School ___4 Other ___6
      (Explain other) _____

If Checked →
(a) Job Obtained Through:
ES Office ___1
Establishment Where Trained ___2
School ___3
Other ___4
Not Known ___9

3. If Employed In Reference Week (if B2a is Checked)
   a. Employer's Industry _____ SIC Code _____
   b. Trainee's Occupation _____
      _____ D.O.T. Code _____
   c. Hours Worked In Reference Week
      Less than 15 ___1
      15-34 ___2
      35 or more ___3
   d. Straight-Time Average Hourly Earnings $ _____ per hr. (Excluding Overtime)
   e. Is Job Training Related? Yes___1 No___2
      (1) Was Training Useful in Obtaining Job Yes___1 No___2
   f. Job Is Expected to Last 30 Days or More Yes___1 No___2
   g. Trainee Had to Move 50 Miles or More to Take Job Yes___1 No___2

If Checked →
(1) Is Individual Waiting to Report to a Job in the Next 30 Days
Yes ___1
No ___0
If Yes, Is It Training Related
Yes ___2
No ___3
Not Known ___4

If Checked →
(1) Hours Worked Were
Normal For Industry, Area or Season ___1
Part-Time
Employee's Choice ___2
For Economic Reasons ___3
Other _____ (Explain) ___4
_____
Not Known 9